REMARKS

This paper is responsive to a non-final Office action dated July 15, 2003. Claims 1-15 and 23-30 were examined. The drawings are objected to under 37 C.F.R. § 1.83(a). Claims 25, 27, and 28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,815,127 to Sato et al.

Objections Under 37 C.F.R. § 1.83(a)

Figure 1 has been amended for clarification to include label 102 indicating an area corresponding to the described voltage plane. Basis for the amendment appears in the specification at least at page 6, lines 8-11. Features corresponding, in one illustrative embodiment, to "apertures", "voltage planes" and "traces traversing apertures" are all illustrated in one or more of the drawings. Figure 1 has been amended to label apertures and corresponding inductive structures to be consistent with the labeling of apertures in Figure 2. No new matter is added.

Applicants respectfully maintain that the amended drawings comply with 37 C.F.R. § 1.83(a). Figures 1 and 2 are corresponding presentations of a similar configuration, wherein FIG. 1 illustrates (in plan view) certain layout-oriented features, including the portions of traces (e.g., 121, 122, 123) that are essentially parallel as they traverse the corresponding apertures. Corresponding FIG. 2 illustrates analogous features using electrical symbols to emphasize the inductive coupling provided by structures 110, 110A, 110B, 110C, and 110D. More specifically, FIG.1 and FIG. 2 illustrate an electrical assembly (100) comprising traces extending toward respective off-assembly connections (e.g., 1, 2, 3, 4, 5), and structures (e.g., 110, 110A, 110B, 110C, 110D) defined along the traces to induce compensating crosstalk signals having an opposing polarity which opposes initial crosstalk signals that are associated with mutual coupling between adjacent off-assembly connections, wherein one or more of the structures are defined by a respective aperture (e.g., 112, 112A, 112B, 112C, 112D) in a voltage plane (102) of the electrical assembly and portions of the traces which traverse a respective aperture (e.g., 110, 110A, 110B, 110C, 110D) and which are essentially parallel to each other. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

Art Rejections Under 35 U.S.C. § 102

Claims 25, 27, and 28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,815,127 to Sato et al. Regarding claim 25, Applicants respectfully maintain that Sato fails to teach or suggest

> means defined along the traces for inducing compensating crosstalk signals having opposing polarity to initial crosstalk signals associated with mutual coupling between adjacent of the off-assembly connections

as recited in claim 25. The Office action relies on Figure 5, Figure 7, and col. 2, line 45-col. 3, line 21 of Sato to supply this teaching. Those portions of Sato teach a phase reversing transformer that "results in any signals induced into adjacent communication paths to be partially out of phase in order to achieve a cancelling effect." (Col. 2, line 67-col. 3 line 2) However, Sato fails to teach that the phase reversing transformer induces compensating crosstalk signals having opposing polarity to initial crosstalk signals. The Office action fails to point out where Sato teaches or suggests, and Applicants respectfully maintain that Sato fails to teach or suggest initial and compensating crosstalk signals. Figure 5 of Sato teaches current that flows in an unbalanced communication path 30. When a cross-point switch is closed, currents b and c are induced in communication path 31. (Col. 4, lines 9-20) Thus, Sato teaches a single set of crosstalk signals, current a and the induced currents b and c. The magnitudes of b and c are nearly equivalent but are 180 degrees out of phase with each other. Sato fails to teach or suggest that currents b and c have opposing polarity to initial crosstalk signals, they merely have opposing polarity to each other. Thus Sato fails to teach or suggest means defined along the traces for inducing compensating crosstalk signals having opposing polarity to initial crosstalk signals associated with mutual coupling between adjacent of the off-assembly connections, as recited by claim 25. For at least this reason, Applicants believe claim 25 is allowable over Sato. Accordingly, Applicants respectfully request that the rejection of claim 25, and all claims dependent thereon be withdrawn.

In summary, claims 1-15 and 23-30 are in the case. Claims 1, 11, 27, and 30 have been amended for clarification. Figure 1 has been amended for clarification. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Nicole Teitler Cave 10/15/03
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Respectfully submitted,

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